



# Junior Leader Innovation Symposium

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## Engaging and Empowering Junior Leaders to Reinvigorate a Culture of Innovation



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Navy Warfare Development Command  
"Forward... For the Fleet"

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# Background: Innovation Campaign



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**This is the second major event. The first, the Maritime Innovation Symposium (13-14 Mar), yielded several actionable recommendations:**

Actions	Status
• Refine process for submitting & developing ideas	{ CNO-approved revised concept process New concept nomination process online Revitalized NLLS and NDLS
• Push innovation into classrooms	{ Close coordinating with NWC, NPS, TTGL, Senior Enlisted Academy; Planning USNA internship program
• Develop network of innovators	{ Launched Innovation Collaborative Team Exploit via online tools, DCO, Facebook, etc
• Leadership & strategic communications emphasis	{ Supporting innovation at Flag events and through command messaging tools

***Navy Center for Innovation – Transforming ideas into realities***

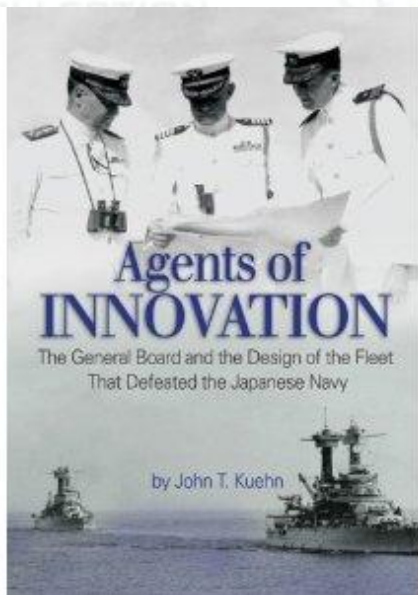
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# Agents of Innovation

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Innovation can occur in the face of constraints. When military leaders perceive they have to solve specific problems they rarely concede defeat in the face of constraints. German, American, Japanese experiences in 1919 - 1937 show how naval innovation was affected in a positive way by physical, strategic, and materiel constraints. The curiosity of leaders was piqued, rather than dulled, by limitations or disarmament.

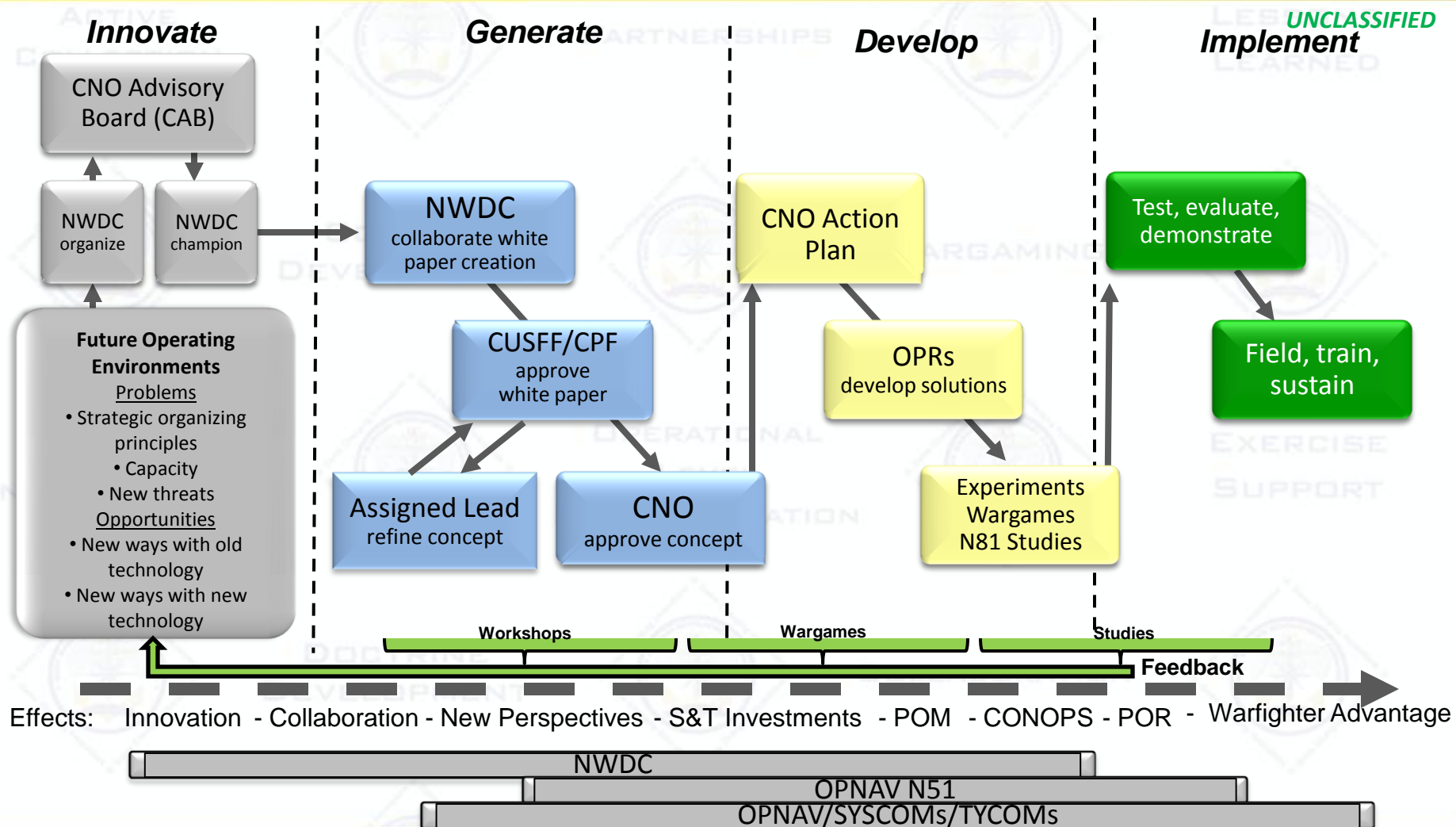
- John T. Kuehn

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# Navy CGCD Process



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# Junior Leaders are Essential

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- Are a large demographic group
- Must instill innovation into everyday operations - Junior Leaders run daily activities
- Are open-minded and less wedded to traditional processes
- Experts with new technology
- Greater tolerance for risk
- Cultural change is slow – the next generation is the key



# Junior Leader Innovators



- Submarine Rescue: LT Swede Momsen
  - Designed submarine escape device and rescue chamber to allow crewmen trapped in sunken submarines to escape



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Swede Momsen and the Momsen Lung



- Amphibious Warfare: Capt Pete Ellis, USMC
  - Writings led to development of WWII amphibious warfare doctrine at the Naval War College and fleet exercises



Pete Ellis and Amphibious exercises at Culebra, Puerto Rico



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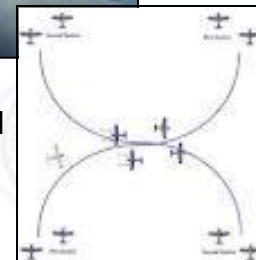
# Junior Leader Innovators



- WWII Air Combat Tactics: LCDRs Thach & Flatley, ENS O'Hare
  - Thach Weave: Tactical innovation allowed Navy fighters to counter maneuverable Japanese aircraft
  - Fighter direction, radar pickets, and CAP tactics countered massed kamikaze attacks



F4F  
Wildcat and  
the Thach  
Weave



- Steam Propulsion: Benjamin Isherwood
  - 22 year old naval engineer who helped design steam engines for shipboard propulsion prior to the Civil War
  - Became a prolific antebellum technical writer

Benjamin  
Isherwood and  
steam frigate  
USS Missouri  
circa 1842







# Junior Leader Innovators



- Combat IPAD & Afghanistan Air Support:  
Capt Jim Carlson (USMC)
  - Capt Carlson, a Cobra pilot in the 3<sup>rd</sup> Air Wing, digitized 1,000 Helmand Valley maps on an IPAD (amounting to 30 pounds of paper) for close air support missions
  - For less than \$1,000 per aircraft, the IPAD system provides the AH-1W Cobra a GPS-based moving map display capability and dramatically cut the time required to coordinate air support to ground troops under fire



Capt Carlson manning  
up an AH-1W Cobra  
with his IPAD



# Junior Leader Roles and Expectations

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- ADM Harvey "...there are some very smart Sailors and JOs out there who both care deeply about what they are doing and have the knowledge, insight and experience to give us ideas that can significantly improve many fundamental aspects of how we do business today."
- You own the future. You have a professional obligation and vested interest to shape the capabilities and culture of tomorrow's Fleet.
  - Think deeply
  - Question continuously
  - Debate rigorously
  - Read broadly
  - Write boldly
  - Communicate your ideas to leadership

***This is an opportunity to step forward & speak up – make the most of it***